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EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/483,399

Applicant(s)

MICHAEL L. TROMPOWER

Examiner

Naghmeh Mehrpour

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-18, 20-32, 34 and 35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-18, 20-32, 34-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claim 32**, is rejected under 35 U.S.C. 102(e) as being anticipated by Paatelma (US Patent Number 6,463,042 B1).

Regarding **Claim 32**, Paatelma teaches a cellular communication system (col 3 lines 60-67, col 4 lines 1-6) comprising:

means for transmitting a data packet having a first portion (header, col 5 lines 2-18) and a second portion (data portion) (col 2 lines 34-54); and

means for dynamically adjusting the transmission power level of the first portion (header) with respect to the second portion (data) of the data packet coupled to the means for transmitting a data packet having a first portion and a second portion (col 5 lines 2-18);

means determining for transmission power levels of the first and the second portions based on a desired transmission range of both the first and the second portion (col 2 lines 32-41).

***Claim Rejections - 35 USC § 103***

3           The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.       **Claims 29-31**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Paatelma (US Patent Number 6,463,042 B1) in view of Fischer (US Patent Number 5,768,695).

Regarding **Claims 29**, Paatelma teaches a communication unit transmitting first portion of data with first transmission level and second portion of data with second transmission level (col 2 lines 35-41),

a processor (see figure 4, controller 18 includes processor, col 4 lines 22-26), to the power adjustment module 18 (the system transmit power, therefore, the controller is power controller module), the processor begins adapted to provide power adjustment information to the power control module 18, and a receiver 16 coupled to the processor 18 (col 4 lines 8-26);

a receiver receives over RF link wherein the accesses point system is coupled to the network (col 2 lines 34-36);

a transmitter adapted to transmit data over RF link (col 3 lines 60-67, col 4 lines 1-8), the cellular system is based on Radio Frequency link (RF).

Paatelma fails to teach that an access point system in a communication system utilizing an IEEE 802.11 standard comprising:

a power control module coupled to the transmitter, the power control module adapted to receive a data packet having a PLCP preamble and PLCP header portion and a data portion dynamically adjust the transmission power of the packet during transmission of the packet, such that the PLCP preamble portion beings, and **dynamic adjustment of transmission power made to facilitate transmitting the PCLP preamble and the data portion over a substantially similar transmission rang**. However Fischer teaches a unit that transmits and receives a data packet having a PLCP preamble and PLCP header portion and a data portion dynamically adjust the transmission power of the packet during transmission of the packet, such that the PLCP preamble portion beings, and **dynamic adjustment of transmission power made to facilitate transmitting the PCLP preamble and the data portion over a substantially similar transmission rang** (see figure 1, col 2 lines 61-67, col 3 lines 1-10).

Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Fischer with Paatelma, in order to provide a flexible interface between a medium access control device and a wireless physical device.

Regarding **Claims 30-31**, Paatelma teaches a D/A converter, the D/A converter adapted to receive power data information in digital format and convert the power data information to an analog control signal, the analog signal adapted to control the transmission power (col 4 lines 8-26). Paatelma fails to teach a unit wherein the power control module includes a transmission power amplifier adapted to receive the data packet, control the transmission power of the PLCP preamble portion and the data portion. However Fischer teaches a unit wherein the power control module 102 includes a transmission power amplifier 110 adapted to receive the data

Art Unit: 2686

packet and control the transmission power of the PLCP preamble portion and the data portion, the transmission power amplifier adapted to receive power data information to control the transmission power of the transmission power amplifier (col 2 lines 60-65, col 3 lines 1-10).

Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Fischer with Paatelma, in order to prevent the unit from spurious emission of energy that lie outside of the FCC mandated special density envelop.

Thereby benefit the unit by passing FCC rule testing for granting operation license.

5. **Claims 2-5, 7-8, 18, 20-28, 34-35**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Paatelma (US Patent Number 6,463,042 B1) in view of Hassan et al. (US Patent Number 6,301,231 B1).

Regarding **Claim 2**, Paatelma teaches a cellular communication unit/method (col 3 lines 60-56). Paatelma inherently teaches a cellular communication unit/method (col 3 lines 60-67, col 4 lines 1-6), the unit comprising:

a transmitter (14) adapted to transmit data over an RF link (col 3 lines 60-67, col 4 lines 105); and

a power control module 18 coupled to the transmitter 14 (see figure 4), the power control module 18 adapted to receive a data packet having a first portion (header, col 5 lines 2-18) and a second portion (data portion) and transmit the first portion at a first transmission power and the second portion at a second transmission power (col 2 lines 34-54). Paatelma does not specifically mention that the unit/method transmits, the first portion of the data packet at a first data rate end

Art Unit: 2686

and the second portion of the data packet at a second data rate. However Hassan teaches a unit/method transmits, the first portion of the data packet at a first data rate and the second portion of the data packet at a second data rate (col 2 lines 17-27). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Hassan with Paatelma, in order to provide a busy tones that indicates a base station is in an overload condition, therefore, improve the performing transmission data rate allocation of a high speed wireless communication network.

Regarding **Claim 3**, Paatelma teaches a method wherein the first power and the second power are adjusted so that the first portion and the second portion are selected so that the first portion and the second portion have a similar transmission ranges (col 2 lines 51-54).

Regarding **Claims 4-5**, Paatelma teaches a cellular communication system (col 3 lines 60-67, col 4 lines 1-7). Paatelma fails to teach that the data packet includes a third portion and the power adjustment module receives the data packet, and having the third portion and transmits the third portion at third rate. However Hassan teaches a communication network the data packet includes a third portion and the power adjustment module is adapted to receive the data packet, having the third portion and transmit the third portion at third rate (col 2 lines 17-27, lines 56-62). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Hassan with Paatelma, in order to provide a busy tones that indicates a base station is in an overload condition, therefore, improve

Art Unit: 2686

the performing transmission data rate allocation of a high speed wireless communication network.

Regarding **Claim 7**, Paatelma teaches wherein the communication unit is an access point (col 4 lines 51-57). Paatelma teaches that the mobile station 10 need not to be mobile at all, but could be installed or used at a fixed station. The mobile can be capable of operating with one or more air interface standards, modulation types, and access types (see figure 4, col 4 lines 51-57).

Regarding **Claim 8**, Paatelma teach that the communication unit is a mobile unit (col 4 lines 8-15).

Regarding **Claim 18**, Paatelma inherently teaches a unit wherein the communication unit is coupled to a network (col 3 lines 60-66) and the network provides the power control circuit 18 (see figure 4, col 5 lines 2-18) with information relating to the power transmission level of the first portion and the second portion (col 2 lines 34-54).

Regarding **Claims 20, 34**, Paatelma inherently teaches a cellular communication unit/method (col 3 lines 60-67, col 4 lines 1-6), the unit comprising:

a transmitter (14) adapted to transmit data over an RF link (col 3 lines 60-67, col 4 lines 105); and

a power control module 18 coupled to the transmitter 14 (see figure 4), the power control module 18 adapted to receive a data packet having a first portion (header, col 5 lines 2-18) and a second portion (data portion) and transmit the first portion at a first transmission power and the



Art Unit: 2686

second portion at a second transmission power (col 2 lines 34-54). Paatelma teaches a system wherein the means for dynamically adjusting the transmission power level. the power level of the first portion with respect to the second portion of the data. Paatelma fails to teach further adjusting the power transmission level of a third portion of the data packet with respect to the first and second portions. However Hassan teaches further adjusting the power transmission level of a third portion of the data packet with respect to the first and second portions (col 2 lines 17-27, lines 55-62). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Hassan with Paatelma, in order to provide a busy tones that indicates a base station is in an overload condition, therefore, improve the performing transmission data rate allocation of a high speed wireless communication network.

Regarding **Claim 21**, Paatelma inherently teaches a cellular communication unit/method (col 3 lines 60-67, col 4 lines 1-6), the unit comprising:

a transmitter (14) adapted to transmit data over an RF link (col 3 lines 60-67, col 4 lines 105); and

a power control module 18 coupled to the transmitter 14 (see figure 4), the power control module 18 adapted to receive a data packet having a first portion (header, col 5 lines 2-18) and a second portion (data portion) and transmit the first portion at a first transmission power and the second portion at a second transmission power (col 2 lines 34-54).

Art Unit: 2686

Regarding **Claim 22**, Paatelma teaches a method wherein the first power and the second power are adjusted so that the first portion and the second portion have essentially the same range (col 2 lines 50-54).

Regarding **Claim 23**, Paatelma teaches a method wherein a communication unit precedes of transmitting a first portion a first transmission power level (col 2 lines 34-54), the communication unit including a transmitter 14, a power control module 18 coupled to the transmitter (14A, 14, modulator is part of transmitting module). Paatelma inherently teaches that, a processor coupled to the power control module 18 and a receiver 16 couple the processor (col 4 lines 20-30, lines 40-65). Paatelma teaches that the controller 18 may be comprises of a digital signal processor device and other support circuits, and the control and signal processor functions of the mobile station are allocated between these devices according to their capabilities (col 4 lines 20-29).

Regarding **Claim 24**, Paatelma teaches a method wherein the processor (col 4 lines 8-29) provides the power control module 18 (col 4 lines 8-15) with the first transmission power (header, transmitted higher) and the second transmission power (data, lower) after providing a communication unit and prior to transmitting a first portion of the data packet at a first transmission power level. The first portion is the header, which transmits with the first power level. (Col 2 lines 50-54). Processor is part of the controller (col 3 lines 20-28), and Paatelma teaches that power detection and power controlling (col 2 lines 34-55).

Art Unit: 2686

Regarding **Claim 25**, Paatelma inherently teaches a method wherein the processor (controller 18 comprises processor, col 4 lines 20-28) evaluates the first transmission power and the second transmission power based on a desired transmission range for the first portion and the second portion of the data packet (col 2 lines 34-40). Paatelma teaches power control and power detections (col 2 lines 41-55), there, inherently teaches the power evaluation. Paatelma teaches a method for operating a wireless terminal in a wireless communication system that operates with frames time divided into slots each having a Header portion followed by a Data portion. The system is arranged to transmit a downlink slot so that the Header portion is transmitted at a higher power level than the Data portion when the Data portion does not contain valid data so as to reduce system interference. This is known as a Quasi-Discontinuous Transmission (Q-DTX) mode of operation. The method includes steps of (A) receiving all of the Header portion and only a part of the Data portion of a slot and detecting whether the Header portion was transmitted at a higher power level than the Data portion is being transmitted; and (B) if it is detected that the Header portion was transmitted at a higher power level than the Data portion is being transmitted, terminating the reception of a remaining part of the slot and placing at least a portion of the wireless terminal in a reduced power consumption state. Otherwise, if it is detected that the Header portion was transmitted at the same power level as the Data portion is being transmitted, continuing to receive the remaining part of the slot. Therefore, Paatelma inherently teaches power evaluation (col 2 lines 34-55), since there is a detection of the power for the header transmission, which is different for the power of the data transmission.

Art Unit: 2686

Regarding **Claim 26**, Paatelma inherently teaches a method wherein the processor (controller 18 comprises processor, col 4 lines 20-29) evaluates the first transmission power and the second transmission power based on a desired transmission range for the first portion and the second portion of the data packet (col 2 lines 34-40), based on a transmission power level of a transmission received from another mobile communication unit col 4 lines 6-16). Paatelma teaches a cellular communication system (see figures 4-5, col 3 lines 6-17, col 2 line 34-54). Paatelma teaches a method for operating a wireless terminal in a wireless communication system that operates with frames time divided into slots each having a Header portion followed by a Data portion. The system is arranged to transmit a downlink slot so that the Header portion is transmitted at a higher power level than the Data portion when the Data portion does not contain valid data so as to reduce system interference. This is known as a Quasi-Discontinuous Transmission (Q-DTX) mode of operation. The method includes steps of (A) receiving all of the Header portion and only a part of the Data portion of a slot and detecting whether the Header portion was transmitted at a higher power level than the Data portion is being transmitted; and (B) if it is detected that the Header portion was transmitted at a higher power level than the Data portion is being transmitted, terminating the reception of a remaining part of the slot and placing at least a portion of the wireless terminal in a reduced power consumption state. Otherwise, if it is detected that the Header portion was transmitted at the same power level as the Data portion is being transmitted, continuing to receive the remaining part of the slot. Therefore, Paatelma inherently teaches power evaluation (col 2 lines 34-55), since there is a detection of the power for the header transmission, which is different for the power of the data transmission.

Art Unit: 2686

In a conventional cellular communication system the mobile units transmits/receives power between each other wirelessly through base stations. The threshold range varies during the operation of the wireless terminal based on an influencing factor that may depend on the velocity of the mobile or amount of noise interference in the channel. One of the causes for the amount of noise and interference in the system is because the frequency (channels) assignment of the mobile unit interferes with the frequency (channels) assignments of the adjacent mobile unit. Therefore, the mobile unit receives/transmits power based on power of the other mobile unit.

Regarding **Claim 27**, Paatelma inherently teaches a method wherein the communication unit is coupled to a network (Base station, col 3 lines 60-67) and the processor (controller 18, the processor is part of the controller 18, col 4 lines 20-29) evaluates the first transmission power and the second portion of the data packet (col 2 lines 35-55), the network (cellular network) providing the processor (controller 18, col 4 lines 20-29) information relating to the desired transmission range (col 3 lines 6-27). Paatelma teaches a method for operating a wireless terminal in a wireless communication system that operates with frames time divided into slots each having a Header portion followed by a Data portion. The system is arranged to transmit a downlink slot so that the Header portion is transmitted at a higher power level than the Data portion when the Data portion does not contain valid data so as to reduce system interference. This is known as a Quasi-Discontinuous Transmission (Q-DTX) mode of operation. The method includes steps of (A) receiving all of the Header portion and only a part of the Data portion of a slot and detecting whether the Header portion was transmitted at a higher power level than the Data portion is being transmitted; and (B) if it is detected that the Header portion was transmitted

Art Unit: 2686

at a higher power level than the Data portion is being transmitted, terminating the reception of a remaining part of the slot and placing at least a portion of the wireless terminal in a reduced power consumption state. Otherwise, if it is detected that the Header portion was transmitted at the same power level as the Data portion is being transmitted, continuing to receive the remaining part of the slot. Therefore, Paatelma inherently teaches power detection (col 2 lines 34-55), since there is a detection of the power for the header transmission, which is different for the power of the data transmission.

Regarding **Claim 28**, Paatelma teaches a method wherein the power level of the first portion and the second portion is dynamically adjusted during the transmission of the data packet (col 2 lines 35-67, col 3 lines 1-6)

Regarding **Claim 35**, Paatelma teaches a signal transmitted over wireless communication system (col 3 lines 60-67, col 4 lines 1-6), the unit comprising:

a data packet having a first portion (header, col 5 lines 2-18) and a second portion (data portion) and transmit the first portion at a first transmission power and the second portion at a second transmission power (col 2 lines 34-54). Paatelma fails to teach further adjusting the power transmission level of a third portion of the data packet at a third power level, and a third portion transmitted at a third power level.

However Hassan teaches further adjusting the power transmission level of a third portion transmitted at a third power level (col 2 lines 17-27, lines 55-62). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above

Art Unit: 2686

teaching of Hassan with Paatelma, in order to provide a busy tones that indicates a base station is in an overload condition, therefore, improve the performing transmission data rate allocation of a high speed wireless communication network.

6. **Claim 6, 9-17**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Paatelma et al. (US Patent Number 6,301,231 B1) in view of Hassan (US Patent Number 6,301,231 B1) in a further view of Fisher et al. (US Patent Number 5,768, 695).

Regarding **claim 6**, Paatelma modified by Hassan fails to teach a system/unit wherein the data packet conforms to the IEEE 802.11 standard protocol and the first portion of the data is PLCP preamble, the second portion of the data packet is a PLCP header and the third portion of the data packet is a data portion. However Fischer teaches system/unit wherein the data packet conforms to the IEEE 802.11 standard protocol and the first portion of the data is PLCP preamble, the second portion of the data packet is a PLCP header and the third portion of the data packet is a data portion (col 2 lines 61-67, col 3 lines 1-10). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to provide the above teaching of Fischer with Paatelma modified by Hassan, in order to prevent the unit from spurious emission of energy that lie outside of the FCC mandated special density envelop, thereby, benefit the unit by passing FCC rule-testing for granting operation license.

Regarding **Claim 9**, Paatelma teaches a communicating system wherein the power control module receives the power data packet and dynamically controls the transmission power of the

Art Unit: 2686

first portion and the second portions. Paatelma modified by Hassan fails to teach the power control module includes power amplifier. However Fischer teaches a system/unit wherein the power control module includes a transmission power amplifier (col 3 lines 32-39). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Fischer with Paatelma modified by Hassan, in order to provide a highly desirable system wherein a resource allocation independent from the network architecture and the associated transmission and processing delays.

Regarding **Claim 10**, Paatelma teaches a unit wherein the power control module 18 includes: a D/A converter **that receives** power data information in digital format and **converts** the power data information to an analog control signal (col 4 lines 20-29), the analog signal adapted to control, a transmission power module adapted to receive the data packet, control the transmission power (col 4 lines 23-29). However Paatelma modified by Hassan fails to teach that the power control module includes a power amplifier. However Fischer teaches the power control module includes a power amplifier (col 3 lines 34-39). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Fischer with Paatelma modified by Hassan, in order to provide a system that has a better performance with high signal qualities.

Regarding **Claim 11**, Paatelma teaches a unit including a processor coupled to the D/A converter; processor **transmits** the power data information to the D/A converter (col 4 lines 22-29).



Regarding **Claim 12**, Paatelma teaches a unit 10 wherein including a receiver 16 coupled to the controller 18, the controller 18 includes processor, and the processor **transmits** the power data information to the D/A converter (col 4 lines 22-26).

Regarding **Claim 13**, Paatelma teaches a unit wherein a receiver 16 coupled to controller 18 the controller 18 includes processor (col 4 lines 22-27), the receiver **provides** adapted to receive a transmission from the other communication unit transmitting information to receiver 14, the processor evaluating a range from the transmission and downloading power data information to the power control circuit based on a desired transmission range of the data packet (col 2 lines 36-54).

Regarding **Claim 14**, Paatelma teaches a unit wherein the power control module 18 includes a digital processor device, a microprocessor device, and various analogs to digital A/D converters, digital to analog D/A converters (col 4 lines 20-26). Paatelma modified by Hassan fails to teach a unit wherein the processor coupled to the power data register **stores** the power data information. However Fischer teaches a unit wherein the controller (processor) is coupled to a data registers **stores** section (see figure 3, col 4 lines 27-35). Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made, to combine the above teaching of Fischer with Paatelma modified by Hassan, in order to provide a highly desirable system wherein a resource allocation is independent from the network architecture and the associated transmission and processing delays.

Regarding **Claim 15**, Paatelma modified by Hassan fails to teach a unit wherein a processor is coupled to the power data register section; the processor transmits the power data information to the power data register section. However Fischer teaches that the power control module is coupled to a data register section module stores the power data information (col 4 lines 27-33). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Fischer with Paatelma modified by Hassan, in order to provide a system that has a better performance with high signal qualities.

Regarding **Claim 16**, Paatelma teaches a receiver coupled to the processor, the receiver receives a transmission from other communication unit (col 4 lines 53-65).

Regarding **Claim 17**, Paatelma inherently teaches a cellular communication unit including transmission power information to the processor (controller 18) from transmission communication unit 14 transmitting information to the receiver 16 receives (see figure 4, col 4 lines 22-26), the processor (controller 18) evaluating a range from the transmission power Information and downloading power data information to the power control circuit based on a desired transmission range of the data packet (See figure 4, col 2 lines 34-41, col 4 lines 22-34).

*Response to Arguments*

7. Applicant's arguments filed on 10/11/04 have been fully considered but they are not persuasive.

In response to the applicant's argument that Paatelma does not disclose, or suggest **means for determining transmission power levels of a first and second portion... of a data packet .... Based on a desired transmission range for both the first and second portion as cited in claim 32**, the examiner asserts that Paatelma teaches a method for operating a wireless terminal in a wireless communication system, the system determining the transmission power level of a first (header) and second (data) portions based on desired transmission range (reduce the interference) for both header and data portion. In other words, the desire transmission range for the system is to reduce the interference, and when the system determines that the second portion (data portion) is not valid, the system dynamically adjusts the power transmission by transmitting the first portion (header portion) with higher power (col 2 lines 32-41). Therefore, Paatelma does teach **means for determining transmission power levels of a first and second portion... of a data packet .... based on a desired transmission range for both the first and second portion as cited in claim 32**.

In response to the applicant's argument that neither Paatelma nor Fischer teach a **dynamic adjustment of transmission power made to facilitate transmitting the PCLP preamble and the data portion over a substantially similar transmission rang, and Fischer does not disclose altering power between portions of such format (thus cannot disclose transmission power is adjusted to facilitate transmitting a PLCP preamble and a data portion over a substantially similar transmission range)**, examiner asserts that Fischer

Art Unit: 2686

teaches a system and/or methodology ramping up and ramping down power to various sections of a radio in a wireless network, Further Fischer teaches, a Physical Layer Convergence Protocol (PLCP) frame format defined by IEEE standard 802.11 is disclosed as frame format that can be utilized to transfer data between a MAC device and a radio. As mentioned above Paatelma teaches dynamic adjustment of transmission power between the first portion (Header) and second portion (Data portion) in a wireless communication system. Paatelma does not teach that a header section is PLCP frame format. However, Fischer teaches a wireless communication system providing power adjustment for various portion of radio including Header portion with PLCP frame format. Therefore, Paatelma modified by Fischer as cited above teaches **a dynamic adjustment of transmission power made to facilitate transmitting the PCLP preamble and the data portion over a substantially similar transmission rang.**

CA 3/1/05  
In response to the applicant's argument that Hassan does not disclose, **a communication unit that transmit a first portion and a data package at the first data rate and a second portion of the data packet at the second data rate, a third portion and the data packet at a third transmission power level, and nothing relating to transmission power of a message,** examiner asserts that Hassan <sup>teaches</sup> a communication system designed to transmit data from a first Earth-based terminal up to a constellation of satellites in non-geosynchronous orbit and down to a second Earth-based terminal. When the first Earth-based terminal is in view of at least two satellites in the constellation, the data may be split and a portion of the data transmitted to each of the satellites in view. For example, suppose that an Earth-based terminal requests to transmit data [d.sub.1, d.sub.2, d.sub.3, d.sub.4, d.sub.5, d.sub.6 . . . d.sub.n ] at a data rate equal to R bits/second. According to Hassan's invention, the Earth-based terminal transmits one portion of

Art Unit: 2686

the data, for example, [d.sub.1, d.sub.2, d.sub.3] at R.sub.1 bits/second to one satellite and transmits another portion the data [d.sub.4, d.sub.5, d.sub.6 . . . d.sub.n ] at R.sub.2 bits/second to the other satellite, where the sum of R.sub.1 bits/second plus R.sub.2 bits/second equal R bits/second, and where the data portion [d.sub.1, d.sub.2, d.sub.3 ] is different from the data portion [d.sub.4, d.sub.5, d.sub.6 . . . d.sub.n ]. The first and second satellites then transmit the portion of data received at R.sub.1 bits/second and the portion of data received at R.sub.2 bits/second, respectively, via one or more intermediate relay satellites or directly down to the second Earth-based terminal, which reassembles the portions of data into the original data [d.sub.1, d.sub.2, d.sub.3, d.sub.4, d.sub.5, d.sub.6 . . . d.sub.n ] (col 3 lines 32-55).

Hassan's invention is directed to a constellation-based satellite communication system and, in an exemplary embodiment, provides a technique for transmitting data from a first Earth-based terminal to a first and second satellite in non-geosynchronous earth orbits. The first Earth-based terminal includes an antenna system to communicate with the first and second satellites and a transmitter coupled to the antenna to transmit to the first and second satellites. The transmitter transmits a request for a communication link with the first satellite at a first data rate. A receiver in the first Earth based terminal is coupled to the antenna system to receive from the first and second satellites. The receiver receives a reply from the first satellite in response to the request for a communication link. If the reply indicates that a communication link is available at the first data rate, a connection is established and transmission initiated. If, however, the reply indicates that the first data rate is not available and only a second data rate (less than the first data rate) is available, then a request for a communication link is transmitted to the second satellite. If a reply from the second satellite indicates that a communication link is available,

Art Unit: 2686

then a communication link is established with both the first and second satellites (col 1 lines 60-67, col 2 lines 1-17). Hassan further teaches a system includes a communication controller, which, in response to the reply from the first satellite, apportions the data into first and second data portions. The transmitter establishes a first communication link with the first satellite to transmit the first data portion to the first satellite at the second data rate and, while maintaining the first communication link, establishes a second communication link with the second satellite to transmit the second data portion to the second satellite at a third data rate (which, when summed with the second data rate equals the first data rate) (col 2 lines 17-27). Therefore, Hassan does teach **a communication unit that transmit a first portion and a data package at the first data rate and a second portion of the data packet at the second data rate.** In addition in col 2 lines 55-62, Hassan teaches a system that further includes a third satellite in Earth orbit wherein the communication controller apportions the data into first, second and third different data portions and the transmitter, while maintaining the first and second communication links, establishes a third communication link with the third satellite to transmit the third data portion to the third satellite at a fourth data rate less than the first data rate. Therefore, Hassan teaches a third portion and the data packet at a third transmission power level. In conclusion in order to provide a system that has a better performance with high signal qualities, Paatelma modified by Hassan.

### Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2686

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**9. Any responses to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314, (for formal communications indented for entry)

**Or:**

(703) 308-6306, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II. 2121 Crystal Drive, Arlington. Va., sixth Floor (Receptionist).

Art Unit: 2686


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Melody Mehrpour whose telephone number is (703) 308-7159. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of bi-week) from 6:30 a.m. to 5:00 p.m.

If attempt to reach the examiner are unsuccessful the examiners supervisor, Marsha Banks-Harold be reached (703)305-4379.

NM

March 2, 2005

  
CHARLES APPIAH  
PRIMARY EXAMINER